



The Harbinger

Newsletter of the
Illinois Native Plant Society

Summer 2019
Vol. 36, No. 2

"... dedicated to the study, appreciation, and conservation of the native flora and natural communities of Illinois."



Annual Gathering field trip to Starved Rock. Photo: cassi saari.

Editorial

Another successful INPS annual gathering is in the books and I think I can say that a super fun time was had by all. You can see some pictures from the event in the following pages. The Grand Prairie chapter in Normal, Illinois will host the next annual gathering in June 2020. ∞ Christopher David Benda.

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Message from the President



What an exciting year we've had at INPS. There's so much going on, from grant awards to endangered species recovery to Big Years, it's hard to pick and choose.

The annual gathering was a lot of fun, with over 80 people attending, and really good feedback on the field trips. This year we explored the Hennepin Bend area near LaSalle. When the Kankakee Torrent raced westward as it drained glacial Lake Wauponsee it eroded bedrock to create the dramatic bluffs at Starved Rock and Matthiessen state parks. At the Hennepin Bend it encountered the ancient pathway of the Mississippi River and turned south toward Peoria. This neatly ties in to the exploration a few years ago of the Kankakee River Sands, whose Torrent created the Illinois River above the Hennepin Bend.

As part of the evening program, 2018 INPS grantees talked about the research activities they performed. It was fascinating to hear, and you can find out about these and the 2019 grants at our [website](#). When grantees complete their state grant, they receive a one-year membership to INPS, along with their funds. You should also check out the impressive [Central Chapter's grant program](#), which is funded by their huge native plant sale. These grants really make a difference for students and plant lovers in Illinois.

I went on the Amboy Marsh field trip and was really impressed with the beauty of the site. Located in the Green River Sands; a large sand field formed when the ancient path of the Mississippi River swung east to the Hennepin Bend, Amboy Marsh is a disorganized sand field with ponds and wetlands scattered amongst dunes. I was really impressed by an area with sweet-scented water lily (*Nymphaea odorata*) in a pond surrounded by an extensive field of box huckleberry (*Gaylussacia baccata*) and assorted sedges, overseen by an open black oak grove with Canada mayflower (*Maianthemum canadense*) underneath. The site has problematic upland pasture grasses, and we discussed the good results from the grass herbicide Clethodim where it has been used in other places.

Field trip participants were encouraged to send in photos and some are included in this newsletter. I encourage the photographers amongst us to post pictures to the [Illinois Botany Group on Facebook](#), and let us know about your field trips.

The grass pink orchid recovery program is proceeding apace. The wet spring/early summer caused some eastern grass pink orchid (*Calopogon tuberosus*) populations to go AWOL, especially where there was still standing water. The Oklahoma grass pink (*C. oklahomensis*) survey shows we still have this species in Illinois, but only one plant was observed flowering. Landowners and managers are in agreement that we need to burn and, in some places, increase light levels to promote flowering.

Gotta run, our Chapter meeting will start soon. Hope you all are getting out to see native plants, and perhaps to help manage for their future survival. Happy trails.

Floyd Catchpole
President, INPS

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Check out the [Illinois Native Plant Society Events Calendar](#) for Chapter meetings and workshops.

Welcome New Members

Central Chapter

Jill Bottrell
Ilene Casebeer
Melvin Wayne Clarkson
Mona Colburn
Alan Curtiss
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Rhetta Jack
Dakota Kobler
Tom Larson
Jeff Mackay
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Jennifer Miramonti
Mike Tuttle Jr.
Lauren Umek
Greg Vasilion
Stephanie Walquist
Edward Warden
Ginnie Watson
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Derek Ziomber

2019 Research Grant Awards

The Illinois Native Plant Society is pleased to announce four awards from the 2019 Research Grant Program. All four awardees are graduate students at their institutions. More details on each project are available on the [INPS Research Grant Awards webpage](#).

- **David Barfknecht, Southern Illinois University**

Project: *Biodiversity, Community Structure Shifts, and Exotic Invasion in Xeric Forest Openings*

- **Matthew Evans, Northwestern University and Chicago Botanic Garden**

Project: *Assessment of Vernal Pool Soil Seed Banks*

- **Lauren Lynch, University of Illinois at Urbana-Champaign**

Project: *Effects of Pollinator Gardens on Native Bees on an Urban-Rural Gradient*

- **Jesse Smith, Illinois State University**

Project: *Tallgrass vs. Hill Prairies: Floral Traits and Habitat Size Influence Pollinator Diversity*

Jesse Smith's award is funded by the Central Chapter of the Illinois Native Plant Society because the project takes place primarily in the counties included in the Central Chapter. However, the project met criteria through the State INPS Research Grant Program and is considered a State award. We appreciate the Central Chapter's contribution to the Grant Program.

2018 grant awards: Reports from [the eight 2018 research grant awardees](#) have been received and each awardee has submitted newsletter-type articles describing their project results. These articles will appear in *The Harbinger*, or in newsletters of INPS Chapters or other conservation organizations and will be linked to this website. In-depth research articles based on these projects are also being submitted to scientific journals, including INPS's *Erigenia*, and will be linked to the INPS website as they become available.

Save the Dates

- Thismia Hunt and Calumet Celebration Day at Indian Ridge Marsh, Sunday, August 4, 9AM-Noon. Indian Ridge Marsh, 11740 South Torrence Avenue, Chicago. More than a hundred years ago, a tiny flower known as *Thismia americana* was last seen at Indian Ridge Marsh. That hasn't stopped plant nerds from across the Midwest from gathering to hunt for it! This year, everybody is invited to join The Wetlands Initiative, Audubon Great Lakes, the Chicago Park District, and the Illinois Soybean Association on the ultimate nature scavenger hunt. Plus there will be snacks, prizes, and a family-friendly celebration of the people and places that make the Calumet region the vibrant community it is today. For more information: <http://www.wetlands-initiative.org/upcoming-events/2019/8/4/thismia-hunt-a-calumet-celebration-day>.

- August 17-18, Gary, IN. 2nd Annual Interstate Native Plant Societies Get-together. The north chapter of the Indiana Native Plant Society is hosting this year in Northwest Indiana. Meet at 11AM Saturday at the Paul H. Douglas Environmental Center for a short presentation, followed by a 3-mile hike through oak savanna, panne, foredune, lagoon, and open dune habitats. Sunday's hike is TBD through another one of the Indiana Dunes National Park's gems. Please RSVP to Nathanael J. Pilla at naj.pilla@gmail.com or (219) 928-3730.
- Next North American Prairie Conference: August 7-10, 2022. Lincoln, Nebraska. Watch this webpage for information: <https://tallgrassprairiecenter.org/2022-north-american-prairie-conference>.



Native Plant Sales

- Saturday, August 17, 10AM – 2PM. Hummingbird Festival at Goodenow Grove, Plum Creek Nature Center, 27064 Dutton Rd, Beecher, IL. The Kankakee Torrent Chapter will have a selection of native plants for sale at this event. Check out the [Forest Preserve District of Will County website](#) for more details.

CHAPTER NEWS

Northeast Chapter News

Saturday, September 14, 9AM-Noon: **Gentians in the Fen.** Let's hike at Lake in the Hills Fen! David Schwaegler will lead us on a tour of this super-diverse site. Meet at Barbara Key Park on Pyott Rd. in Lake in the Hills, IL. Park near the west end of the lot. Wear waterproof footwear (or be prepared to encounter just an inch of two of water). Potential rain date is the following day: Sunday, September 15, same time and place. We will be in contact with people who RSVP in the event the hike is rescheduled. So, RSVP here:

<http://bit.ly/genfen>

Annual Gathering Summary

The 2019 INPS Annual Gathering was held June 21-23 at Illinois Valley Community College in Oglesby, Illinois. Unique this year was that the state hosted the gathering and we were able to visit a new area. Since INPS normally rotates our annual gathering host among the seven chapters and we tend to visit the same places, it was nice to be able to see some different sites at this year's gathering. Thanks to Gary Sullivan, the keynote speaker, and to Floyd and Janine Catchpole, and the INPS board and volunteers for making this a successful event.

Field trips to the surrounding area were led by local expert guides and featured diverse habitats and a wide variety of native plants:



Amboy Marsh Nature Preserve, Illinois Audubon Society



Amboy Marsh.

Clockwise from above:

Hairy Puccoon (*Lithospermum carolinense*) by Roger Ross.

Buxbaum's sedge or club sedge (*Carex buxbaumii*) by Sheri Moor.

Sand milkweed (*Asclepias amplexicaulis*) by Fred McGuire.

Group photo by Sheri Moor.

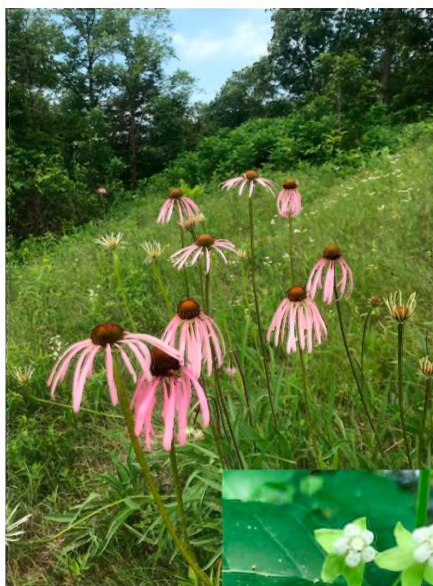


Dixon Waterfowl Refuge, The Wetlands Initiative



Dixon Waterfowl Refuge Panorama. By Evan Barker.

Franklin Creek State Natural Area, Illinois DNR



Franklin Creek.
L to R: Field trip picnic. Hill prairie.
Poke Milkweed (*Asclepias exaltata*).
Photos by Chris Benda.

Nachusa Grasslands, The Nature Conservancy



Nachusa Grasslands.
Group photo. Bison.
Photos by Chris Benda.

Green River State Wildlife Management Area & Foley Sand Prairie Nature Preserve, Illinois DNR



Foley Sand Prairie Nature Preserve.

Above: Group photo.

Lower left: Tuberclad orchid
(*Platanthera flava* var. *herbiola*).

Lower right: Speckled phlox
(*Phlox maculata*).

Photos by Randy Nyboer.



Starved Rock Nature Preserve and Matthiessen Dells, Illinois DNR



Starved Rock.

Photo by
cassi saari.

Photo by
Dave Roberts.





Photo by Evan Barker.

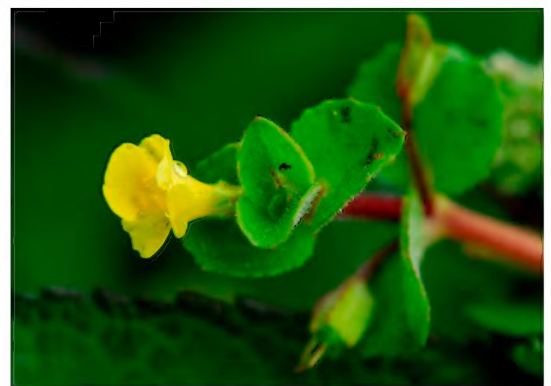
Mapping the Yellow Monkey Flower in an Illinois Seep

By Anna Braum.

Last summer, in search of *Mimulus glabratus* var. *jamesii*, aka the yellow monkey flower, I found myself knee-deep in what I would later learn is a rare soil series, the “Medo” muck. Consisting of highly decomposed organic matter derived largely from plants, the Medo muck is a deep, poorly drained soil that has a tendency to exert a tenacious grip on rubber boots. It forms part of the substrate of the equally uncommon seep habitat I was attempting to traverse in an INPS-supported endeavor to locate the yellow monkey flower.

An obligate wetland species that is endangered in Illinois, the yellow monkey flower grows in seeps, springs, calcareous fens, and other often largely inaccessible places. The prostrate, mat-forming growth habit is a key feature that distinguishes this species from others that occur in Illinois, as are its namesake yellow flowers that measure less than half an inch long. Currently, the species is known from only four extant populations in Illinois.

As part of a study funded by the 2018 [INPS Research Grants program](#), I worked with colleagues at The Wetlands Initiative to map the distribution of the yellow monkey flower at one of the few remaining sites where the species occurs in Illinois, as well as to characterize the habitat and plant community in which it grows. Although records of the yellow monkey flower at this site date back to the original Illinois Natural Areas



Yellow monkey flower (*Mimulus glabratus* var. *jamesii*). By Gary Sullivan, TWI.

Inventory in the late 1970s, the two locations where the species was found were never mapped, and apart from the odd sighting, the species' whereabouts and distribution within the seep have remained largely mysterious.

Groundwater in the seep emerges from the base of a gravel terrace in a diffuse flow before it is channelized into seep runs. Water quality testing has shown these seep runs to have a circumneutral pH ranging from 7.01-7.07. We followed their trajectories as they took sometimes meandering routes to their outlets at a nearby lake, affording us a rare glimpse of this remarkable wetland habitat. We found the yellow monkey flower growing in the shallow water of 13 gravelly-bottomed seep runs and mapped another 35 runs throughout the seep where the species was absent. We also established 20 1-m² monitoring plots in which we identified a total of 49 plant species, including several frequent associates of the yellow monkey flower such as *Berula erecta* (low water parsnip), *Impatiens capensis* (jewelweed), and *Symphyotrichum puniceum* (bristly aster). The species tally for our monitoring plots also included eight non-native species, most frequent of which were *Nasturtium officinale* (common watercress), *Phragmites australis* (common reed), and *Typha x glauca* (hybrid cattail).

Tracking these plant species and their abundance will allow us to monitor changes in this plant community over time, helping us to assess its floristic quality as well as to tailor management strategies to the benefit of the yellow monkey flower. Thanks to the INPS Research Grants program, whose mission is to promote the study and conservation of native plants and ecosystems, we were able to establish a monitoring protocol that can be replicated from year to year, which, combined with mapping of the population, will help to evaluate the status of this endangered species and its specialized habitat in Illinois.

Anna Braum is a restoration ecologist with The Wetlands Initiative.

North American Trees Survived the Ice Age in “Refugia”

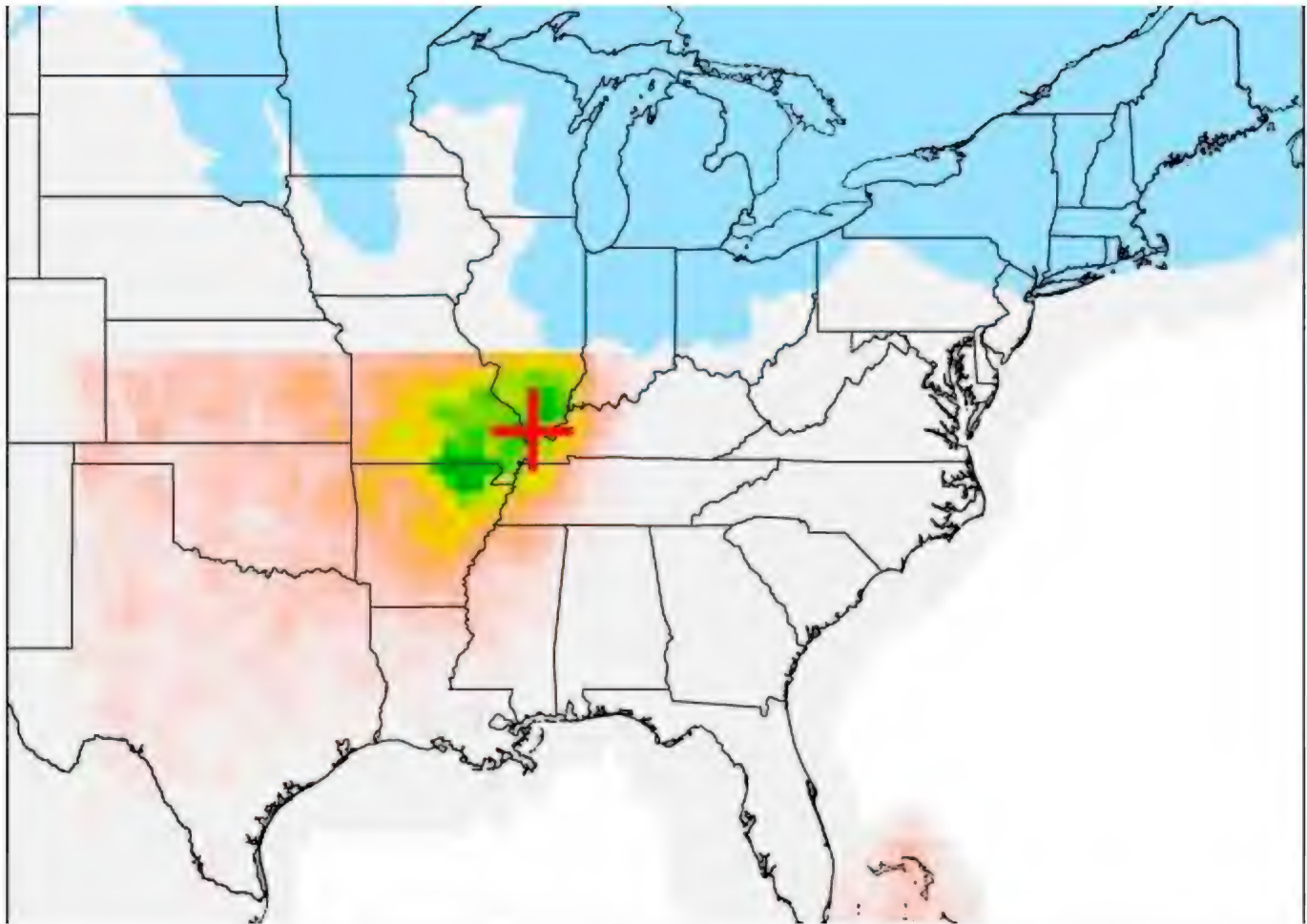
During the last ice age, which peaked around 21,500 years ago, glaciers covered large portions of North America, including the entire Great Lakes region. Once the ice retreated, the land was gradually repopulated by trees that eventually formed dense forests.

But what was the source of the trees that carried out this vast postglacial recolonization? Identifying the exact location of these so-called glacial refugia—the places where ancestors of today's forest species survived the last ice age—has proved difficult and is the topic of an ongoing debate among biologists.

Now, University of Michigan researchers report using a recently developed genetic technique to estimate the precise longitude and latitude of ice-age refugia for two broadly distributed hickory species, the bitternut (*Carya cordiformis*) and the shagbark (*Carya ovata*).

Their results support the controversial idea that some trees likely survived much farther north and closer to the ice sheet than is generally believed. The study was published in April 2019 in [*Proceedings of the National Academy of Sciences*](#).

The researchers looked for the signatures of past geographic migrations in the trees' DNA. Their results for the bitternut hickory support the idea of northern microrefugia, places where local climatic conditions may have allowed the persistence of isolated tree populations within a region of generally inhospitable climate.



The green area on the map shows the inferred location of a "northern microrefugium" where bitternut hickory trees survived the last ice age. Results from a University of Michigan genomic study support the controversial idea that some trees likely survived much farther north and closer to the ice sheet than is generally believed. The red cross marks the spot with the highest likelihood of being the microrefugium. Credit: Bemmels et al in *PNAS*.

"The traditional view is that these tree species only survived in larger refugia located farther south, where regional climate was much warmer," said Jordan Bemmels, first author of the *PNAS* paper.

"Our results for bitternut hickory provide some of the strongest evidence to date that northern microrefugia existed and were important for survival of some temperate tree species throughout the ice age," said Bemmels, who conducted the study for his doctoral dissertation in the U-M Department of Ecology and Evolutionary Biology.

The inferred location of the northern microrefugium is near the confluence of the Mississippi and Ohio rivers, in a region that today includes southernmost Illinois, southeastern Missouri, northeastern Arkansas, and westernmost Kentucky.

As it happens, that location is only 160 miles from a site in southwestern Tennessee, near Memphis, where rare preserved remains of ice-age hickories were found decades ago.

Bemmels is now a postdoctoral research associate at the University of Georgia. His co-authors on the *PNAS* paper are Christopher Dick and Lacey Knowles of the U-M Department of Ecology and Evolutionary Biology.

Identifying the locations of glacial refugia is important to biologists for several reasons. In addition to helping them understand basic forest history, the information allows them to establish a baseline that shows how fast and how far tree species are able to migrate in response to climate change.

Also, locating refugia helps biologists identify tree populations that may be genetically unique and important to conservation efforts. Northern tree populations that were recently recolonized are often thought to be unimportant for conservation of genetic diversity and long-term species survival relative to southern populations that are believed to be reservoirs of unique genetic diversity.

But Bemmels and his colleagues conclude that "increasing evidence of expansion out of northern microrefugia suggests that conventional wisdom about management of genetic diversity may need to be revised."

Numerous refugial regions have been proposed in eastern North America, including the Gulf Coast, the Atlantic Coastal Plains, the Lower Mississippi River Valley, the Southern Appalachians, the Florida peninsula, and central Texas.

Various research tools have been applied to the problem over the years, but all of them have limitations. Climate-based models identify only broad areas of potential habitat, and traditional studies of the geographic distribution of genealogical lineages provide poor spatial resolution. Fossil pollen records provide some clues on refugia locations, but those records are incomplete for most of eastern North America at the time of the last ice age and have been difficult to interpret.

In the current study, Bemmels and his colleagues harnessed signals of range expansion from large genomic datasets, using a simulation-based framework to infer the precise latitude and longitude of North American glacial refugia for two hickory species.

The technique they applied, a data-analysis pipeline called X-Origin, was developed in the laboratory of co-author Lacey Knowles at the University of Michigan. It was originally used to study expansion of pika (*Ochotona collaris*) populations in Alaska but has broad applications for understanding the geography of range expansion in terrestrial species.

The researchers examined more than 1,000 genetic markers spread across the genomes of bitternut and shagbark hickories, from datasets Bemmels generated for another section of his doctoral dissertation. The genetic material was collected from about 150 individuals in each species, across the full range of both species.

The direction and distance the trees migrated from their initial source population left behind distinctive patterns within their DNA—footprints that could be traced back to the geographic source.

The researchers used a computer simulation technique to model range expansion from different refugia and to produce expectations for the genetic patterns that would likely arise from these different "expansion origins."

Then they compared the simulated genetic patterns to the real genetic patterns extracted from hickory tree DNA to identify the most likely scenarios. By repeating the process millions of times, they were able to statistically estimate the latitude and longitude where the ancestors of modern populations survived the last ice age—something that not been done before for temperate trees.

The inferred location of the glacial refugium for the other study species, shagbark hickory, is in the eastern Gulf Coastal Plain and includes most of Alabama, Mississippi, and southeastern Louisiana. That location corresponds to more traditional proposals of a southern refuge.

"The ability to extract details from population genomic data about where species took refuge when changing climate conditions drove shifts in their distribution means the researcher's toolbox now has a powerful way to identify the geographical coordinates of such refugia in any species," Knowles said.

Co-author Dick added: "Although the inferred northern refuge in the Mississippi Valley was generally harsh and inhospitable during the glacial period, there were probably milder conditions near glacial meltwater lakes—known as microclimates—in which some temperate tree species could persist."

The *PNAS* paper is titled "Genomic evidence of survival near ice sheet margins for some, but not all, North American trees." Jordan B. Bemmels et al. *PNAS* (2019). www.pnas.org/cgi/doi/10.1073/pnas.1901656116

Journal information: [Proceedings of the National Academy of Sciences](http://www.pnas.org)

This article was previously published online at <https://m.phys.org/news/2019-04-genomic-refugia-north-american-trees.html>.

Review: *Prairie Wildflowers* by Don Kurz

By Sonja Lallemand.

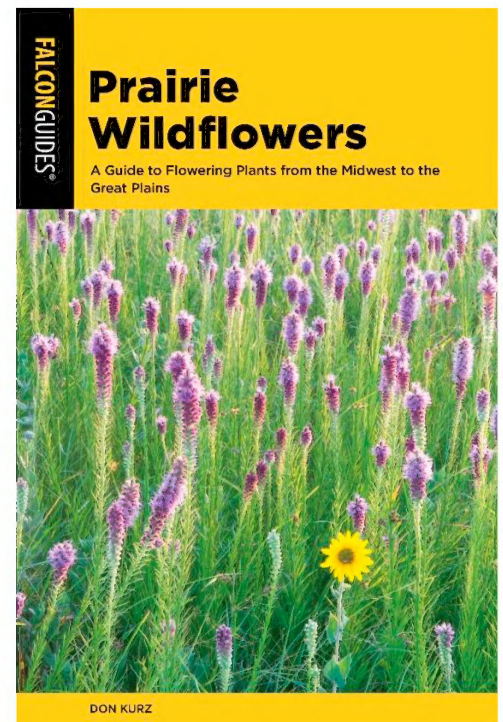
Prairie Wildflowers: A Guide to Flowering Plants from the Midwest to the Great Plains by Don Kurz, is the newest reference book on the native flora of the plains. This new edition will join the many books available from FalconGuides, the largest “publisher of Human-powered outdoor recreation guidebooks.”

Organized by flower color (with color tabs), this beautifully illustrated guide provides detailed information on the plants and their habitat. The thorough descriptions give a great deal of information to make identification easier for novice botanists and plant enthusiasts. However, the plants are sorted by Plant Families (Asteraceae, Commelinaceae, Fabaceae, etc.) rather than season of bloom (spring/summer, summer/fall, etc.) which would have made finding the flowers a bit easier. Mother Nature always adds a twist, so the author in the ‘Comments’ section identifies related species and recounts interesting anecdotal information on their uses by Native Americans.

In the Introduction, Don Kurz has provided the plant enthusiast with precise descriptions of the different types of prairies/habitats, their locations, and a short list of plants that are likely to be found in them. Identifying a plant by flower color and/or shape is often not enough. The ‘Plant Identification’ in the introduction covers the basic shapes of leaves and flowers and is complete with illustrations.

Most of the plants (350) chosen for this book have a wide range of distribution and can be found throughout the tallgrass prairie. Among the selections included are plants found in specific areas like blue wild indigo (*Baptisia australis* var. *minor*), occasionally found in upland prairies. To bring awareness to the status of these plants in the wild, the author indicates in the ‘Habitat/Range’ section the frequency of occurrence of the plants in their native habitats. No guide book would be complete these days without a section on ‘Weeds.’ The final section includes these invaders that are now found in the prairies, their origin, and a description of the role they have played in the degradation of our natural areas.

This guide is complete with a glossary as an added bonus for those who are just starting to explore identification of native plants. Where are the prairies located? A complete directory by state lists the name and contact



information of the various state agencies and organizations involved in preserving our prairies. Out on the prairie where the smart phone does not have access to an app, this guide will be the perfect companion.

Other News & Web Links

Pathogen That Causes Sudden Oak Death Found in Illinois

The Illinois Department of Agriculture issued a press release July 2 announcing that the pathogen that causes Sudden Oak Death, a plant disease that has killed large tracts of oaks and affected many native plant species in California, Oregon, and Europe, has been found in Illinois. *Phytophthora ramorum*, the causal agent of Sudden Oak Death (SOD) has been confirmed in ornamental plants at ten Walmart locations in Cook, Jackson, Jefferson, Lee, Macon, Monroe, St. Clair, Stephenson, and Will Counties, and one Hy-Vee location in McDonough County through cooperative efforts between IDOA and USDA, as well as diagnostic support from University of Illinois, Michigan State, Cornell, and Kansas State Universities, and USDA labs. For the complete announcement, including carrier species affected, visit [https://www2.illinois.gov/IISNews/20290-Sudden Oak Death Release \(002\).pdf](https://www2.illinois.gov/IISNews/20290-SuddenOakDeathRelease(002).pdf).

Range Expansion of Asian Longhorned Tick in the US

The USGS National Wildlife Health Center (NWHC) has published a report to provide situational awareness to state, federal, and tribal wildlife health partners regarding the continued detection and geographic spread of *Haemaphysalis longicornis*, the exotic Asian longhorned tick, in the United States, and to inform biologists about the opportunity to participate in national surveillance for this tick.

Haemaphysalis longicornis is native to East Asia (Japan, China, Korea, and the former USSR) but has established invasive populations in Australia, New Zealand, and several Pacific islands. The tick was first reported in the continental US in 2017, and additional surveillance subsequently revealed that *H. longicornis* had been in the US for several years prior. Infestations of *H. longicornis* have now been confirmed in ten states in the eastern US including Virginia, West Virginia, New Jersey, New York, North Carolina, Pennsylvania, Arkansas, Connecticut, Maryland, and Kentucky.



Biologists can greatly aid in surveillance for this tick and contribute information that could assist with control and prevention of transportation of the tick to new locations. Photographs of ticks suspected to be within the genus *Haemaphysalis* can be uploaded to the TickSpotters website, a citizen science project by the TickEncounter Resource Center at the University of Rhode Island. [Click here](#) for more information about the surveillance project and identifying the Asian longhorned tick.

A Case For Planting Conservative Species - A Love Story



The story begins and ends with the love of one species: the downy gentian (*Gentiana puberulenta*). The downy gentian is not the easiest gentian species to grow, but much of its difficulty is a result of the limits humans have imposed on it, not necessarily a fault of the gentian's ecology or life cycle. Scott Weber has more than 40 years of experience propagating and planting prairies, having worked with the Wisconsin DNR, as well as running Bluestem Farms with his wife Muffy, their own native nursery near Baraboo. Read about the assumptions they successfully challenged in growing this and other prairie species.

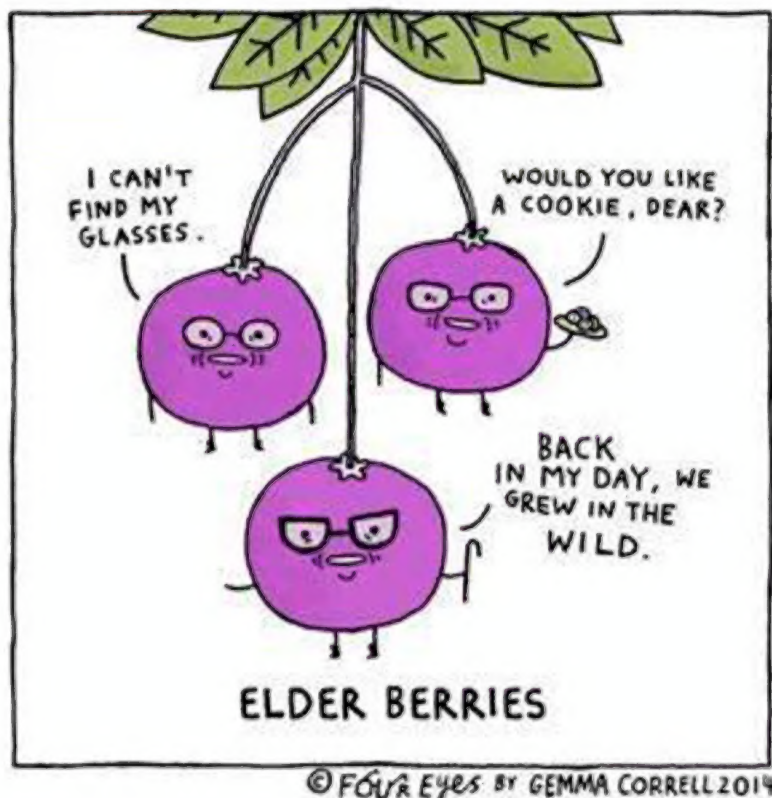
https://www.theprairieenthusiasts.org/conservative_species.

Project Wingspan Needs Your Help!



Pollinator Partnership invites public land managers and private landowners with at least one acre of land in WI, MI, PA, OH, IN, or IL who are committed to long-term conservation of monarch, rusty patched bumble bee, and other rare pollinator habitat to be a part of Project Wingspan! If interested, [PLEASE TAKE THIS SURVEY](#) by July 31 for the chance to participate. If chosen, our Pollinator Habitat Coordinator will visit your site, free of charge, to evaluate your habitat landscape. With your help, we can protect imperiled pollinators!

Botany Humor



ILLINOIS NATIVE PLANT SOCIETY

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www.ill-inps.org



Prickly Pear
(*Opuntia humifusa*).

Photo: Chris Benda.

The Harbinger Summer 2019

You can renew/join by filling out the form below or online at <http://www.ill-inps.org/online-membership-form/>.

Please become a member and support this local non-profit organization dedicated to the preservation, conservation, and study of the native plants and vegetation of Illinois!



Join us!

- ☐ New Member ☐ Address Change only
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Name _____
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Membership Categories

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☐ *Dodecatheon* (life).....\$2,000.00
☐ *Erigenia* (life).....\$3,000.00

PLEASE MAKE CHECKS PAYABLE TO: Illinois Native Plant Society
INPS, Membership, P.O. Box 271, Carbondale, IL 62903-0271

The Harbinger Newsletter is sent electronically by email.

☐ Check here to receive the newsletter BY MAIL

Erigenia, our scientific journal, is now available digitally as well as in print.

Please indicate your preference for receiving the journal.

☐ Email only ☐ Postal Mail only ☐ Both

Chapter Affiliation

- ☐ Central (Springfield) ☐ Northeast (Chicago)
☐ Forest Glen (Westville) ☐ Quad Cities (Rock Island)
☐ Grand Prairie (Bloomington) ☐ Southern (Carbondale)
☐ Kankakee Torrent ☐ Other/Uncertain _____

I would like to help with:

- ☐ Leadership & Organization (serving on board at State or Chapter level)
☐ Leading Field Trips & Tours
☐ Organizing Workshops &/or Seminars

- ☐ Giving Workshops &/or Seminars
☐ Public Speaking
☐ Fund Raising
☐ Website Assistance/Management

- ☐ Public Media/Communications
☐ Writing/Submitting articles
☐ Photography
☐ Other: _____

My area of expertise: _____